

**VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION**

☐ Conceptual Proposal ☒ Final Proposal Date 6-30-2010
Contract ID 071026-201 Job No. J2P0482*
County Macon/Shelby Rt. 36 Original Bid Cost \$32,109,273.54
Contractor Chester Bross Construction By Tim Bennett
Designed By N/A Phone 573-221-5958
VECP# 10-58 (to be completed by C.O.) VECP ☒ or PDVECP ☐

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages
See attached sheet.

2. Estimate of reduction in construction costs. \$8,624.79

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

The full width concrete surface at the median openings and on the deceleration lanes will reduce maintenance costs in these areas.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

7-6-2010
(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

4-12-2010
(date)

Contract Completion

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

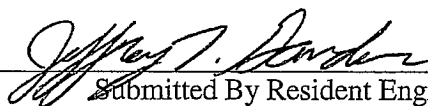
(date and/or dates)

Additional Comments:

**** Portion Below This Line To Be Filled Out by MoDOT ****

Comments:

I recommend approval of this proposal due to it providing a better finished product as well as the cost savings associated.



Submitted By Resident Engineer

7-8-10

Date

Comments:

☒ Approval
Recommended



7/9/10

☐ Rejection
Recommended

District Engineer



Date

Comments:


☐ Approval
Recommended

☐ Rejection
Recommended

Federal Highway Administration
Required for FHWA Full Oversight Projects

Date

Comments:

 7/9/10

☒ Approval

☐ Rejection



State Construction and Materials Engineer

7-14-10

Date

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, FHWA
Value Engineering Administrator - MoDOT, P. O. Box 270, Jefferson City, MO 65102

Value Engineering Proposal – Construct Median Crossovers After Asphalt Overlay

Job No. J2P0482

Route 36

County: Macon/Shelby

Contract Id.: 071026-201

As designed, the median openings at Kellogg, Lavender, Monarch, and Business 36 were designed to be paved flush with the existing lanes. In order to overlay the existing lanes on a subsequent project (J2P0772), a step was to be constructed at the center of the median opening and a temporary wedge installed. Under project J2P0772, the wedge would be removed and the overlay would be paved flush with the top of the step in the median opening. This would result in the new concrete deceleration lane and half of the new median opening to be covered with the overlay which is not optimum.

The proposed change is to construct the overlay project on the existing lanes before completing the median openings on J2P0482. This would allow the deceleration lanes and median openings to be paved flush with the new overlay.

This proposal generates savings by decreasing the quantity of overlay necessary since the deceleration lanes and median crossovers would not be overlaid. There would also be a reduction in cost due to the elimination of the temporary wedge. However, the paving of the deceleration lanes and median crossovers at a later date does result in increased material and labor costs. This is because paving these at a later date requires the use of ready-mix concrete rather than concrete from the batch plant, as well as an increased amount of hand-paving rather than machine paving. The tabulation of the savings and costs are shown on the attached spreadsheet. The result is an overall reduction in cost to MoDOT.

This proposal is unique in that it affects two separate projects. The majority of the savings are on the overlay project, J2P0772, while all of the additional costs are on J2P0482. In order to administer this proposal, a change order will be necessary on both projects. Draft copies of those change orders are also attached to this Value Engineering Proposal.

Contract I.D. 071026-201
 Job No. J2P0482
 Route 36, Macon/Shelby Counties
 VECP

DATE: 4/6/2010

<u>Bid Item</u>	<u>Qty</u>	<u>Unit</u>	<u>Bid Price for</u> <u>SP125C</u>	<u>Total</u>	
4030103 ASPHALTIC CONCRETE MIXTURE PG 70-22 (SP125C MIX)	242.80	TN	\$ 60.05	\$ 14,580.14	Delete (Kellogg, Lavender, Business 36, Monarch)

<u>Bid Item</u>	<u>Qty</u>	<u>Unit</u>	<u>Bid Price for</u> <u>SP190C</u>	<u>Total</u>	
4030208 ASPHALTIC CONCRETE MIXTURE PG 70-22 (SP190C MIX)	278.40	TN	\$ 56.75	\$ 15,799.20	Delete (Kellogg, Lavender, Business 36, Monarch)

<u>Bid Item</u>	<u>Qty</u>	<u>Unit</u>	<u>Bid Price for</u> <u>Tack Coat</u>	<u>Total</u>	
4071005 Tack Coat	254.00	GL	\$ 1.50	\$ 381.00	Delete (Kellogg, Lavender, Business 36, Monarch)

<u>Bid Item</u>	<u>Qty</u>	<u>Unit</u>	<u>Bid Price for</u> <u>Modified Cold</u> <u>Milling</u>	<u>Total</u>	
6224010 Modified Cold-Milling	967.00	SY	\$ 2.95	\$ 2,852.65	Delete (Kellogg, Lavender, Business 36, Monarch)

<u>Bid Item</u>	<u>Qty</u>	<u>Unit</u>	<u>Savings for</u> <u>Eliminating</u> <u>Wedge</u>	<u>Total</u>	
5024307 Concrete Pavement (7 in Non Reinforced (15 ft Joints))	3.00	EA	\$ 2,025.00	\$ 6,075.00	Lavender, Monarch, Kellogg

<u>Bid Item</u>	<u>Qty</u>	<u>Unit</u>	<u>Savings for</u> <u>Eliminating</u> <u>Wedge</u>	<u>Total</u>	
5024308 Concrete Pavement (8 in Non Reinforced (15 ft Joints))	11.00	EA	\$ 2,025.00	\$ 22,275.00	Business 36

SAVINGS \$ 41,712.99

Additional
Cost for Hand

pour and
Ready Mix

Total

Lavender, Monarch, Kellogg
633.8+633.8+416.7=1684.3

Bid Item	Qty	Unit	Total
5021307 Concrete Pavement (7 in Non-Reinforced) (15 Ft Joints)	11.63430	SV	\$ 19,416.81

Additional
Cost for Hand

pour and
Ready Mix

Total

Business 36

Bid Item	Qty	Unit	Total
5021308 Concrete Pavement (8 in Non-Reinforced) (15 Ft Joints)	633.80	SV	\$ 7,535.88

Cost for Saw

Cuts

Total

Lavender, Monarch
570+570+438=1578

Bid Item	Qty	Unit	Total
5021307 Concrete Pavement (7 in Non-Reinforced) (15 Ft Joints)	1.37800	LF	\$ 4,724.90

Cost for Saw

Cut

Total

Business 36

Bid Item	Qty	Unit	Total
5021308 Concrete Pavement (8 in Non-Reinforced) (15 Ft Joints)	1.57000	LF	\$ 4,710.00

Costs \$ 33,096.69

Total Savings to MODOT

\$ 8,616.30

12P0772 items
12P0482 items

Tim Bennnett
Project Manager

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- ☒ Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

PCC

CONSTRUCTION OF MEDIAN OPENINGS WILL BE DELAYED TILL COMPLETION OF AN HMA RESURFACING PROJECT, BEING PLACED BY THE SAME CONTRACTOR. THIS DELAY WILL ELIMINATE A NOTCHED CONCRETE PAVEMENT THAT WOULD HAVE BEEN NECESSARY FOR A TEMPORARY WEDGE AND (AFTER REMOVAL OF THE WEDGE) A PERMANENT OVERLAY ON THE NEW CONCRETE.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

